

NETWORKS

FAQ

Q What would you say affects the performance of powerline networking products?

A As powerline networking products use your existing power cables, there's a whole range of external factors that can degrade performance. The quality of the underlying cabling is one of the most important factors. If you have old, out-of-date wiring, you'll see worse performance than from a product in a house with new wiring.

Powerline networking products can also suffer from electromagnetic interference from devices that are wired in directly or plugged. Lamps can be particularly bad and degrade performance while they're turned on. The number of electrical outlets and length of cabling can also play a big part in powerline networking performance.

Finally, you need to plug your adaptors directly into the wall socket, as multi-way adaptors and, in particular, surge protectors will drop the performance of your network.

David Ludlow
Deputy Editor



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SIMPLY AUTOMATE Domio Starter Kit

★★★★

£135 inc VAT

A fully automated home, controlled through your PC, might seem like a far-fetched fantasy reserved for the ultra rich or a science-fiction novel, but Simply Automate's Domio Starter Kit can get you going for £135. The kit comes with two plug-in dimmer modules, into which you plug standard lamps, Harmony control software, a Media Center software plug-in and a USB X10 interface, which sends commands from your PC to your devices.

For a kit aimed at making home automation simple, it's not as easy as it should be and Harmony is only a trial version. You have to register it to get a full product key, sent via email.

Harmony is a very powerful application, but not particularly easy to use. The interface is a touch confusing and poorly laid out. Its first job is to import your devices. This is a manual process, which involves entering the details of your home automation devices including choosing a unique address and selecting the type, such as Plug-in Dimmer, from a drop-down list. An automatic detection routine or a simple wizard would have made this easier.

Once we'd connected our dimmer switches, we could remotely turn our lamps on and off, and dim them. This doesn't always work properly, though. If you turn a partly dimmed light off and then back on, Harmony tells you it's at full brightness, whereas the lamp is actually at its previous level.

Harmony isn't just about direct control, and you can automate events, such as what time your lamps come on. You can even group together lamps into a preset scene, which sets your lamps to a preconfigured state. These options highlight the



problem with the Starter Kit: there's not enough variety. The full range of supported products includes temperature sensors, motion detectors, alarms, remote controls, appliance switches and a host of other things. Using all these together you can do pretty much anything you want, such as setting your lamps in your dining room to a lower level and switching on the stereo when you have guests, or turning on lights in the bathroom when someone walks in. The range of options is staggering, but the Starter Kit doesn't come close to showing the system's full power.

This kit also comes with a Windows Media Center interface, which lets you use the system to control your devices. However, it can only activate commands,

scenes and actions that you've configured in Harmony, so you still need to do all the difficult work first.

The Domio Starter Kit works well and the range of things that you can do with Harmony is very impressive. However, the kit is too limited in its scope and you'll have to spend more money buying other devices to enjoy its full flexibility.

David Ludlow

SUMMARY

- ✓ Flexible configuration
- ✗ Harmony is difficult to use
- ✗ Starter Kit doesn't offer much scope

HOME-AUTOMATION KIT Two plug-in dimmers, X10 USB control module, Harmony server software, Media Center plug-in. Software requires Windows 98 or above, 32MB RAM, 133MHz processor, 30MB disk space

PART CODE DSKIT

SUPPLIER www.simplyautomate.com

DETAILS www.idomio.co.uk

Also consider...

THOMPSON SpeedTouch 585 v6

★★★★

£54 inc VAT

It might not be the quickest router, but Thompson's SpeedTouch 585 v6 is one of the cheapest ADSL models and more than good enough for web browsing. It's surprisingly easy to use, too, with a neat feature that tells you when your internet connection isn't working rather than displaying a 'Page not found' message. It's great value if you just want a simple router.



ADSL ROUTER 802.11b/g (54Mbit/s) wireless router, four Ethernet ports, ADSL2+ modem **PART CODE** DSLUK683TKE2

SUPPLIER www.dsl-warehouse.co.uk

DETAILS www.speedtouch.co.uk

✓ Good performance

✗ Initial setup is confusing **FULL REVIEW** Jan 2007

D-LINK RangeBooster N 650 Router

★★★★★

£83 inc VAT

PRICE CUT!



The Draft-N RangeBooster router is incredibly easy to set up thanks to the Windows XP Connect Now system, which configures the router using USB. It's also very quick, peaking at 42.4Mbit/s at close range when using a RangeBooster PC Card, which is easily enough for file sharing or streaming video. It's a great router and incredibly fast for the price.



WIRELESS ROUTER Pre-802.11n wireless router (300Mbit/s), four Ethernet ports, one WAN port, UPnP **PART CODE** DIR-635

SUPPLIER www.dabs.com **DETAILS** www.dlink.com

✓ Consistently fast, easy to set up

✗ No WEP support **FULL REVIEW** Nov 2006

DEVOLO



DLAN 200 AVdesk Starter Kit

★★★★★

£147 inc VAT



NETGEAR

Powerline HD Ethernet Adapter

★★★

£67 inc VAT



It was only in *What's New, Shopper* November 2006 that we reviewed 85Mbit/s HomePlug adaptors that let you run a network over your existing power cables, but faster products are already being released. This month we have competing products from Devolo and Netgear, with both claiming to run at 200Mbit/s.

Devolo's DLAN 200 AVdesk Starter Kit includes two adaptors and all the cables you need. This version has desktop units that look a little like wireless routers, but Devolo will also be selling all-in-one plugs. Netgear's Powerline HD Ethernet Adapter is available as individual packs, so it works out a little more expensive than Devolo's kit for two. Netgear has gone for an all-in-one plug design, with the Ethernet port placed neatly on the right-hand side of the plug. You'll have to be careful plugging them in, though: if you have double plug sockets, there's not enough room to plug the Ethernet cable into the Ethernet Adapter if you already have a large adaptor in the socket on the right.

Both products are incredibly simple to get working and just need plugging in. The adaptors then find each other over your power cables and make the connection. Netgear's Ethernet Adapter shows it's connected when a blue light turns on; Devolo's AVdesk adaptors have a dedicated status LED that turns on when the products are connected.

At this point you can plug your PC, router or other network equipment in and you've got a network. You can also do some configuration. Both companies provide simple tools to password-protect your connection, which stops your neighbours from hopping on your network.

For Devolo this is as much configuration as you need to do, but Netgear's software offers an extra choice: a coexistence mode. This is because Netgear uses a proprietary standard instead of the HomePlug AV standard. The coexistence mode makes sure that Netgear's Ethernet Adapters can work in the same environment as HomePlug kit. It doesn't make it compatible with HomePlug certified kit, though, and Netgear's Powerline HD Ethernet Adapters cannot work with Devolo's DLAN 200 adaptors.

Devolo has used the HomePlug AV standard for its adaptors, so they'll work with any other 200Mbit/s HomePlug-certified equipment. They're not backwards-compatible with older 85Mbit/s and 14Mbit/s standards, but they'll happily coexist together.

Both products performed well. Netgear's Powerline HD Ethernet Adapters outperformed Devolo's adaptors slightly when running in proprietary mode. However, in the coexistence mode, the performance dropped to 27.1Mbit/s, which is worse than some of the 85Mbit/s HomePlug kit we've reviewed. Plugging a lamp into the same double plug socket and turning it on also caused the performance of Netgear's adaptors to fluctuate widely, while Devolo's adaptors handled the interference well.

The only problem we had with Devolo's kit was that when we were running our throughput test it interrupted our wireless mouse's signal. We had to move its receiver in front of the adaptors to sort it out.

Powerline networking has come a long way and the 200Mbit/s kit is faster than wireless and suitable for streaming HD video. You're likely to see faster throughputs at home, as our office has a lot more plugs and equipment connected, which degrade performance. Netgear's Powerline HD Adapters were slightly faster in tests, but are hard to recommend as they use proprietary technology. Devolo's DLAN 200 AVdesk Starter Kit is better value, only slightly slower in our test and will work with any HomePlug AV-certified devices, making it our Best Buy.

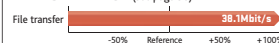
David Ludlow

DEVOLO SUMMARY

- ✓ Uses the HomePlug standard
- ✓ Good value
- ✗ Interfered with our wireless mouse

POWERLINE NETWORKING Two HomePlug AV Ethernet adaptor, Ethernet port
PART CODE 1186
SUPPLIER www.broadbandbuyer.co.uk
DETAILS www.devolo.co.uk

PERFORMANCE (see page 56)

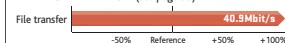


NETGEAR SUMMARY

- ✓ Very quick
- ✗ Doesn't use the HomePlug standard
- ✗ Expensive

POWERLINE NETWORKING 200Mbit/s Ethernet adaptor, Ethernet port
PART CODE HDX101
SUPPLIER www.pcwb.co.uk
DETAILS www.netgear.co.uk

PERFORMANCE (see page 56)



T-MOBILE

Web 'n' walk professional

★★★★★

£20 per month



Connecting to the internet on the move is rarely straightforward and usually involves unreliable Bluetooth mobile phones and expensive data contracts. T-Mobile's Web 'n' walk professional package aims to make the process easier and less expensive. For £20 a month you receive a PC Card that supports WiFi, 3G and GPRS connections, as well as 'unlimited' access to T-Mobile's internet services. The card is free for 18-month contracts and £59 including VAT with a one-year contract.

Changing between the services is simple. If you find yourself in a location not serviced by



3G, you can select the slower GPRS option. The software automatically applies compression to web images, which is not always desirable. This can be adjusted and each connection method has its own settings. GPRS is slow, so using more compression makes sense, while 3G is so quick that we turned off compression. Your choices are saved in profiles, which is a great feature.

Although T-Mobile has marketed Web 'n' walk as unmetered mobile broadband, its fair use policy allows downloads of up to 2GB per month and bans the use of Voice over IP services. If you exceed 2GB you'll get a warning. Ignoring this will result in a slower service.

Download speeds using 3G and GPRS were good. The 3G service, with a maximum speed of 384Kbit/s, felt like a low-end domestic broadband connection, with low latency and fast page-loading times. Using GPRS was like using a regular dial-up connection and was fine for downloading email and occasional web access.

The low cost of this package will make it attractive to mobile workers. It is more reliable than coaxing a mobile phone to cooperate with a notebook, too. In short, it's a bargain.

Simon Edwards

SUMMARY

- ✓ Good download speeds
- ✓ Excellent value
- ✗ Card is bulky

MOBILE DATA CARD 802.11b/g (54Mbit/s), 3G/UMTS, GPRS
SUPPLIER www.t-mobile.co.uk
DETAILS <http://tinyurl.com/nyakw>